PROPOSED

Issuance Date

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RETURN RECEIPT REQUESTED File No. 0097-10
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Mr. David Bissell
Chief Executive Officer
Kauai Island Utility Cooperative
4463 Pahee Street, Suite 1
Lihue, Hawaii 96766-2032

Dear Mr. Bissell:

Subject: Amendment of Covered Source Permit (CSP) No. 0097-01-C
Minor Modification Application No. 0097-10
Kauai Island Utility Cooperative
Port Allen Generating Station
Located At: 261 Akaula Street, Eleele, Kauai
Date of Expiration: December 10, 2017

In accordance with Hawaii Administrative Rules, Chapter 11-60.1, and pursuant to your application for a Minor Modification dated July 24, 2014, the Department of Health, Clean Air Branch, hereby amends Covered Source Permit (CSP) No. 0097-01-C issued to Kauai Island Utility Cooperative on December 11, 2012, and amended on April 10, 2013, May 2, 2013, July 17, 2013, January 3, 2014, and March 20, 2014. The amendment adds definitions for startup and shutdown, and clarifies that the hourly NO_x emission limits do not apply during startup and shutdown for diesel engine generators D-6, D-7, D-8, and D-9.

The enclosed amended Attachment II(C): Special Conditions – Diesel Engine Generators Units D-6, D-7, D-8, and D-9 supersedes in its entirety the corresponding Attachment II(C) issued on December 11, 2012, and amended on April 10, 2013, May 2, 2013, July 1, 2013, January 3, 2014, and March 20, 2014. All other permit conditions issued with CSP No. 0097-01-C shall not be affected and shall remain valid.

If there are any questions regarding these matters, please contact Mr. Darin Lum of the Clean Air Branch at (808) 586-4200.

Sincerely,

STUART YAMADA, P.E., CHIEF
Environmental Management Division

DL:nn

Enclosure
c: Logan Kastner, EHS – Kauai
CAB Monitoring Section

PROPOSED

ATTACHMENT II(C): SPECIAL CONDITIONS
DIESEL ENGINE GENERATORS UNITS D-6, D-7, D-8, AND D-9
COVERED SOURCE PERMIT NO. 0097-01-C

Amended Date: **Expiration Date: December 10, 2017**

In addition to the standard conditions of the Covered Source Permit, the following special conditions shall apply to the permitted facility:

Section A. Equipment Description

1. This portion of the Covered Source Permit encompasses the following equipment and associated appurtenances:

    a. Diesel Engine Generator Unit D-6

        i. One (1) 7.86 MW (nominal) Stork-Wartsila Diesel Generator model 6TM620, serial no. 60600;
        ii. 69.5 MMBtu/hr maximum heat input; and
        iii. Equipped with Variable Fuel Injection Timing Retard (FITR), oxidation catalyst system and crankcase controls.

    b. Diesel Engine Generator Unit D-7

        i. One (1) 7.86 MW (nominal) Stork-Wartsila Diesel Generator model 6TM620, serial no. 60700;
        ii. 69.5 MMBtu/hr maximum heat input; and
        iii. Equipped with Variable Fuel Injection Timing Retard (FITR), oxidation catalyst system and crankcase controls.

    c. Diesel Engine Generator Unit D-8

        i. One (1) 7.86 MW (nominal) Stork-Wartsila Diesel Generator model 6TM620, serial no. 60800;
        ii. 69.5 MMBtu/hr maximum heat input; and
        iii. Equipped with Variable Fuel Injection Timing Retard (FITR), oxidation catalyst system and crankcase controls.

    d. Diesel Engine Generator Unit D-9

        i. One (1) 7.86 MW (nominal) Stork-Wartsila Diesel Generator model 6TM620, serial no. 60900;
        ii. 69.5 MMBtu/hr maximum heat input; and
        iii. Equipped with Selective Catalytic Reduction (SCR), oxidation catalyst system and crankcase controls

    (Auth.: HAR §11-60.1-3, 40 CFR §63.6585)[1]

2. The permittee shall permanently attach an identification tag or nameplate on each piece of equipment which identifies the model number, serial or I.D. number, and manufacturer. The identification tag or nameplate shall be attached to the equipment in a conspicuous location.

   (Auth.: HAR §11-60.1-5, §11-60.1-90)

Section B. Applicable Federal Regulations

1. This Covered Source Permit incorporates conditional requirements from an existing permit issued pursuant to 40 CFR Part 52.21, Prevention of Significant Deterioration of Air Quality.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

2. The diesel engine generators are subject to the provisions of the following federal regulations:

   a. 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories (Maximum Achievable Control Technologies (MACT) Standards), Subpart A, General Provisions; and
   b. 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories (Maximum Achievable Control Technologies (MACT) Standards), Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

   The permittee shall comply with all applicable provisions of these standards, including all emission limitations and all notification, testing, monitoring, and reporting requirements. The major requirements of these standards are detailed in the special conditions of this permit.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-174, 40 CFR §63.1, §63.6585)[1]

Section C. Operational and Emission Limitations

1. Air Pollution Control Equipment

   The permittee shall continuously operate and maintain the following air pollution controls to meet the emission limits as specified in Special Condition Nos. C.5 and C.6 of this Attachment:

   a. The use of turbocharging and intercooling on diesel engine generators D-6, D-7, D-8, and D-9;
   b. The use of good combustion practices and high combustion efficiency on diesel engine generators D-6, D-7, D-8, and D-9;

c. Variable Fuel Injection Timing Retard (FITR) on diesel engine generators D-6, D-7, and D-8. The variable FITR shall retard the engine's injection timing four (4) degrees from the manufacturer's standard injection timing setting at fifty (50) percent of rated capacity and shall increase the retard linearly to eight (8) degrees retard at 100 percent of rated capacity. Between 100 and 110 percent of rated capacity, the engines shall be retarded eight (8) degrees from the manufacturer's standard injection timing setting;
d. Selective catalytic reduction (SCR) system including an ammonia slip monitoring system on diesel engine generator D-9. The ammonia slip shall remain below 20 ppmvd at 15% $O_{2;}$ and
e. On and after May 3, 2013, oxidation catalysts and crankcase controls.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

2. Allowable Fuels

Diesel engine generators D-6, D-7, D-8, and D-9 shall be fired only on fuel oil no. 2, biodiesel [pure biodiesel (B100)], or any combination thereof, with a maximum sulfur content not to exceed 0.4% by weight.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-38, §11-60.1-90)

3. Maximum Fuel Consumption

The total combined fuel consumption for diesel engine generators D-6, D-7, D-8, and D-9 shall not exceed the rate of 54,610 gallons per day and 19,930,000 gallons per any rolling twelve-month (12-month) period.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

4. Operating Load Limits

The permittee shall not allow the operation of diesel engine generators D-6, D-7, D-8, and D-9, below twenty-five (25) percent of rated load, except during equipment startup, shutdown, maintenance, or testing. The permittee shall not allow the operation of diesel engine generators D-6, D-7, D-8, and D-9, above one hundred ten (110) percent of rated loads at any time. Engine load shall be determined on a fifteen-minute (15-minute) average basis.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

5. Maximum Emission Limits

The permittee shall not discharge or cause the discharge into the atmosphere from each of diesel engine generators D-6, D-7, D-8, and D-9, nitrogen oxides, sulfur dioxide, carbon monoxide, volatile organic compounds, and particulate matter in excess of the following specified limits:

Compound	Maximum Emission Limits* (lbs/hr)
Sulfur Dioxide	33.14
Nitrogen Oxides (as NO_2)(above 50% of rated load)	
Units D-6, D-7, and D-8 (except during startup and shutdown, as defined in Special Condition Nos. C.9.a and C.9.c of this Attachment)	185.22
Unit D-9 (except during NO_x startup and shutdown, as defined in Special Condition Nos. C.9.b and C.9.c of this Attachment)	68.28
Nitrogen Oxides (as NO_2)(at 50% of rated load)	
Units D-6, D-7, and D-8 (except during startup and shutdown, as defined in Special Condition Nos. C.9.a and C.9.c of this Attachment)	125
Unit D-9 (except during NO_x startup and shutdown, as defined in Special Condition Nos. C.9.b and C.9.c of this Attachment)	61.76
Nitrogen Oxides (as NO_2)(below 50% of rated load)	
Units D-6, D-7, and D-8 (except during startup and shutdown, as defined in Special Condition Nos. C.9.a and C.9.c of this Attachment)	110
Unit D-9 (except during NO_x startup and shutdown, as defined in Special Condition Nos. C.9.b and C.9.c of this Attachment)	40.55
Carbon Monoxide (prior to May 3, 2014)	
Units D-6, D-7, and D-8	23.90
Unit D-9	45.00
Carbon Monoxide (on and after May 3, 2014, except during startup, as defined in Special Condition No. C.9.a of this Attachment)	
Units D-6, D-7, and D-8	7.2
Unit D-9	13.5
Volatile Organic Compounds as Carbon	22.80
Particulate Matter (at or above 50% of rated load)	7.85
Particulate Matter (below 50% of rated load)	5.23

*Three-hour (3-hour) averages.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-132; 40 CFR §52.21, 40 CFR §63.6603)[1]

6. Emission Limitations for Generator Loads

The permittee shall not discharge or cause the discharge into the atmosphere from each of diesel engine generators D-6, D-7, D-8, and D-9, nitrogen oxides, sulfur dioxide, carbon monoxide, volatile organic compounds, and particulate matter in excess of the following specified limits at full load:

Compound	Emission Limits for Each Diesel Engine Generator* at Full Load (@ 15% O_2)
	100-110%
Sulfur Dioxide (ppmvd)	97
Nitrogen Oxides (ppmvd) as NO_2	
Units D-6, D-7, and D-8 (except during startup and shutdown, as defined in Special Condition Nos. C.9.a and C.9.c of this Attachment)	590
Unit D-9 (except during NO_x startup and shutdown, as defined in Special Condition Nos. C.9.b and C.9.c of this Attachment)	290
Carbon Monoxide (ppmvd) (prior to May 3, 2014)	
Units D-6, D-7, and D-8	160
Unit D-9	302
Carbon Monoxide (ppmvd) (on and after May 3, 2014, except during startup, as defined in Special Condition No. C.9.a of this Attachment)	
Units D-6, D-7, and D-8	48
Unit D-9,	91
Volatile Organic Compounds (ppmvd) as Carbon	267
Particulate Matter (lb/MMBtu)	
Units D-6, D-7, and D-8	0.11
Unit D-9	0.11

*Three-hour (3-hour) averages.

If any emission limit is lowered, the difference between the existing emission limit and the revised lower emission limit shall not be allowed as an emission offset for future construction or modification.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-132; 40 CFR §52.21, 40 CFR §63.6603)[1]

7. Visible Emissions (VE)

For any six (6) minute averaging period, the diesel engine generators shall not exhibit visible emissions of twenty (20) percent opacity or greater, except as follows: during start-up, shutdown, or equipment breakdown, the diesel engine generators may exhibit visible emissions greater than twenty (20) percent opacity but not exceeding sixty (60)

percent opacity for a period aggregating not more than six (6) minutes in any sixty (60) minutes.

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90; SIP §11-60-24)[2]

8. On and after May 3, 2014, the permittee shall comply with the following requirements for each diesel engine generator:

   a. Oxidation catalyst systems shall be installed and operated on diesel engine generators D-6, D-7, D-8, and D-9;
   b. Except during startup, limit concentration of CO in the stationary RICE exhaust to twenty-three (23) ppmvd at fifteen (15) percent O_2; or reduce CO emissions by seventy (70) percent or more;
   c. Except during startup, maintain engine exhaust temperature so that the temperature at the oxidation catalyst inlet is greater than or equal to 450 °F and less than or equal to 1350 °F;
   d. Maintain the oxidation catalyst so that the pressure drop does not change by more than 2" H_2O at 100% load (±10%) from pressure drop across the catalyst measured during the initial performance test;
   e. Minimize engine idling and limit startup to less than thirty (30) minutes; and
   f. Install, operate and maintain a filtration system on the open crankcase ventilation system.

   (Auth.: HAR §11-60.1-3; §11-60.1-11, §11-60.1-90, 40 CFR §63.6603, §63.6625)[1]

9. Definitions of Startup and Shutdown

   a. "Startup" shall be defined as the time from initial start until applied load, engine, and associated equipment, including the catalyst, reaches steady state or normal operation.

   (Auth.: HAR §11-60.1-3; §11-60.1-90)

   b. "NO_x startup" shall be defined as the lesser of the first sixty (60) minutes of continuous fuel flow to the diesel engine generator after fuel flow is initiated or the period of time from diesel engine generator fuel flow initiation until the diesel engine generator achieves two (2) consecutive CEM data points in compliance with the NO_x emission concentration limits of Special Condition No. C.6 of this Attachment.

   (Auth.: HAR §11-60.1-3; §11-60.1-90)

   c. "Shutdown" shall be defined as the lesser of the thirty (30) minute period immediately prior to the termination of fuel flow to the diesel engine generator or the period of time from non-compliance with the NO_x emission concentration limits of Special Condition No. C.6 of this Attachment until termination of fuel flow to the diesel engine generator.

   (Auth.: HAR §11-60.1-3; 40 CFR §63.6675)[1]

Section D. Monitoring and Recordkeeping Requirements

1. The permittee shall operate and maintain a Continuous Emissions Monitoring System (CEMS) to measure and record the NO_x, and CO_2 or O_2 concentrations in the stack gas from diesel engine generators D-6, D-7, D-8, and D-9. If a CO_2 CEMS is used, 40 CFR Part 60, Appendix A, Method 20, Equations 20-2 and 20-5 shall be used. The system shall meet EPA performance specifications (40 CFR §60.13 and 40 CFR Part 60, Appendices B and F).

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

2. The permittee shall operate and maintain continuous monitors to measure and record the operating load for diesel engine generators D-6, D-7, D-8, and D-9.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

3. The permittee shall operate and maintain a total volumetric flow metering system for the continuous measurement and recording of the fuel usage in diesel engine generators D-6, D-7, D-8, and D-9.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

4. Fuel Data

   a. Sulfur content of the fuel. The sulfur content of the fuel fired in diesel engine generators D-6, D-7, D-8, and D-9 shall be tested by the refiner or importer in accordance with the most current American Society of Testing and Materials (ASTM) methods. ASTM Method D4294-90 is a suitable alternative to Method D129-91 for determining the sulfur content. Except as provided in subsection (iii), fuel sulfur content shall be verified by both of the following methods:

      i. A representative sample of the fuel fired shall be collected from the fuel pipeline by drip sampling and analyzed for its sulfur content by weight at least once per month;
      ii. A certificate of analysis on the sulfur content shall be obtained for each bulk shipment of fuel delivered by the supplier to the tank farm; and
      iii. If the sulfur content of the fuel fired is tested by the refiner or importer in accordance with the requirements of 40 CFR §80.580, then no additional fuel sampling and analysis shall be required.

   b. Records on the total amount of fuel fired in diesel engine generators D-6, D-7, D-8, and D-9 shall be maintained on a daily, monthly and rolling twelve-month (12-month) basis.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

5. Not later than May 3, 2013, the permittee shall install, operate, and maintain a continuous parameter monitoring system (CPMS) to monitor and record temperature at the oxidation

catalyst inlet on diesel engine generators D-6, D-7, D-8, and D-9. The permittee must prepare a site-specific monitoring plan. The CPMS and the site-specific monitoring plan must meet the requirements of 40 CFR §63.6625(b).

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, 40 CFR §63.6625, §63.6655)[1]

6. Once the testing required pursuant to Special Condition No. F.3 of this Attachment is completed, the permittee shall measure and record the pressure drop across each oxidation catalyst on a monthly basis.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, 40 CFR §63.6625, §63.6640, §63.6655)[1]

7. Opacity of Stack Emissions

   a. Except as provided in Special Condition No. D.7.b of this Attachment, the permittee shall operate and maintain a combustion efficiency monitoring system, consisting of a CO continuous emission monitor (CEM) and each unit's operating load monitor specified in Special Condition No. D.2 of this Attachment, as an alternative to a transmissometer continuous monitoring system provided a correlation is established between each unit's stack opacity and the combustion efficiency monitoring system. The CEM shall measure and record the CO concentrations in the stack gas from diesel engine generators D-6, D-7, D-8, and D-9. The system shall meet EPA performance specifications (40 CFR §60.13 and 40 CFR Part 60, Appendices B and F).
   b. Once the oxidation catalyst is installed on diesel engine generators D-6, D-7, D-8, and D-9, and compliance with the CO limits of Special Condition Nos. C.5 and C.6 of this Attachment are demonstrated in accordance with the testing requirements of Special Condition No. F.3 of this Attachment, the permittee shall no longer be required to operate and maintain the combustion efficiency monitoring system.

      However, if the emissions from any of the four (4) diesel engine generators frequently exceed the opacity limits specified in Special Condition No. C.7 of this Attachment or is determined to be in violation of the opacity limits, the Department of Health, at its discretion, may require the permittee to either:

      i. Re-establish the combustion efficiency monitoring system on the implicated engine, in accordance with the requirements of Special Condition No. D.7a of this Attachment; or
      ii. Install, operate and maintain a transmissometer continuous monitoring system for the implicated engine. The transmissometer continuous monitoring system shall be installed within one hundred eighty (180) days upon written receipt from the Department of Health requiring installation of the transmissometer continuous monitoring system. The transmissometer continuous monitoring system shall measure and record the opacity of stack emissions for diesel engine generators

D-6, D-7, D-8, and D-9. The system shall meet EPA monitoring performance standards (40 CFR §60.13 and 40 CFR Part 60, Appendix B).

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

8. Visible Emissions (VE)

   a. The permittee shall conduct **annually** (*calendar year*) VE observations for each equipment subject to opacity limits by a certified reader in accordance with 40 CFR Part 60, Appendix A, Method 9. For each period, two (2) observations shall be taken at fifteen (15) second intervals for six (6) consecutive minutes for each equipment. Records shall be completed and maintained in accordance with the **Visible Emissions Form Requirements.**
   b. Upon written request and justification, the Department of Health may waive the requirements for the annual VE observations. The waiver request is to be submitted prior to the required test and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior test indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous annual VE observations.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-32, §11-60.1-90; SIP §11-60-24)[2]

9. The permittee shall maintain a file of all measurements and monitoring data, including the monitoring system performance evaluations; calibration checks; and adjustments and maintenance performed on the system or devices and all other information required to be recorded by 40 CFR Part 60.13 in a permanent form suitable for inspection.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

10. All records, including support information, shall be true, accurate and maintained at the facility for at least five (5) years from the date of the monitoring samples, measurements, tests, reports, or application. Support information includes all calibration and maintenance records and copies of all reports required by the permit. These records shall be in a permanent form suitable for inspection and made available to the Department of Health or their representatives upon request.

    (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

Section E. Notification and Reporting Requirements

1. Excess Emissions

   a. The permittee shall submit an excess emissions and opacity report to the Department of Health for **every semi-annual calendar period**. The report shall include the following:

i. The magnitude of excess emissions and opacity computed in accordance with 40 CFR §60.13(h), any conversion factors used, and the date and time of commencement, and completion of each time period of excess emissions and opacity;
ii. Specific identification of each period of excess emissions and opacity that occurs including during startups, shutdowns and malfunctions of the diesel engine generators. The nature and cause of any malfunction (if known), and the corrective action taken or preventive measures adopted, shall also be reported;
iii. The date and time identifying each period during which the continuous emissions monitoring system and combustion efficiency monitoring system or transmissometer was inoperative except for zero and span checks. The nature of each system repair or adjustments shall be described; and
iv. The report shall so state if no excess emissions or opacity have occurred. Also, the report shall state if the continuous emission monitoring system and combustion efficiency monitoring system or transmissometer operated properly during the period and was not subject to any repairs or adjustments except for zero and span checks.

b. All reports shall be postmarked by the **30th day following the end of each semi-annual calendar period**. The enclosed **Excess Emissions and Monitoring System Performance Summary Report** form shall also be submitted in addition to the excess emissions and monitoring systems performance report.

Excess emissions shall be defined as any three-hour (3-hour) period during which the average emissions of NO_x, as measured by the continuous emissions monitoring system or determined through calculations based on the information obtained for the continuous monitoring systems, exceed the emission limits set forth in Special Condition Nos. C.5 and C.6 of this Attachment. Excess opacity shall be defined as any rolling six-minute (6-minute) period during which the average opacity as measured by each monitoring cycle indicated by the combustion efficiency monitoring system or a transmissometer continuous monitoring system, which shall be representative of a six-minute (6-minute) period, exceed the opacity limits set forth in Special Condition No. C.7 of this Attachment.

c. Excess emissions indicated by the continuous emissions monitoring system, except during the start-up and shut-down periods, shall be considered violations of the applicable emission limit for the purposes of the permit. Excess opacity identified by the combustion efficiency monitoring system shall not be considered violations of the applicable opacity limit for the purposes of this permit. Excess opacity identified by a transmissometer continuous monitoring system shall be considered violations of the applicable opacity limit for the purposes of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

2. Annual Emissions

As required by Attachment IV and in conjunction with the requirements of Attachment III, Annual Fee Requirements, the permittee shall submit **on an annual basis** the total tons

per year emitted of each regulated air pollutant, including hazardous air pollutants. The reporting of annual emissions is due **within sixty (60) days** *after the end of each calendar year*. The enclosed **Annual Emission Report Form: Diesel Engines**, shall be used in reporting.

Upon written request of the permittee, the deadline for reporting annual emissions may be extended if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-114)

3. Additional notification and reporting shall be conducted in accordance with the standard conditions found in Attachment I, Standard Condition Nos. 16, 17, and 25, respectively. These notifications shall include, but not be limited to:

    a. Intent to shut down air pollution control equipment for necessary scheduled maintenance;
    b. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances due to emergencies); and
    c. Permanent discontinuance of construction, modification, relocation or operation of any covered source covered by this permit.

    (Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90)

4. The permittee shall report in writing **within five (5) working days** *any deviations from permit requirements*, including those attributable to upset conditions, the probable cause of such deviations and any corrective actions or preventative measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan.

    (Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90)

5. Compliance Certification

    During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA, Region 9, the attached **Compliance Certification Form**, pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include, at a minimum, the following information:

    a. The identification of each term or condition of the permit that is the basis of the certification;
    b. The compliance status;
    c. Whether compliance was continuous or intermittent;
    d. The methods used for determining the compliance status of the source currently and over the reporting period;

e. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
f. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and in which the excursion or exceedance as defined in 40 CFR 64 occurred; and
g. Any additional information as required by the Department of Health including information to determine compliance.

The Compliance certification shall be submitted with **sixty (60) days after** the end of each calendar year and shall be signed and dated by a responsible official.

Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

6. The permittee shall submit **semi-annually** written reports to the Department of Health for monitoring purposes. The reports shall be submitted **within sixty (60) days** *after the end of each semi-annual calendar period (January 1 to June 30 and July 1 to December 31)* and shall include the following:

   a. The results of the monthly analyses of fuel sulfur content;
   b. The fuel consumption (gallons) for diesel engine generators D-6, D-7, D-8, and D-9, on a monthly and rolling twelve-month (12-month) basis. Any exceedance of the daily fuel limitation shall also be reported. The enclosed **Monitoring Report Form: Fuel Consumption**, shall be used; and
   c. Any deviations from permit requirements shall be clearly identified.

   (Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90, §11-60.1-132; 40 CFR §52.21, 40 CFR §63.6650; SIP §11-60-24)[1,2]

   d. The permittee shall submit the semi-annual compliance reports to the Department of Health and U.S. EPA, Region 9, required by 40 CFR §63.6650. The enclosed **Excess Emissions and Continuous Monitoring System (CMS) Performance Report and/or Summary Report Form** or an equivalent form shall be used.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, 40 CFR §63.6650)[1]

7. At least **thirty (30) days** prior to the following events, the permittee shall notify the Department of Health in writing of:

   a. Conducting a performance specification test on the Continuous Emissions Monitoring System (CEMS) and combustion efficiency monitoring system or transmissometer.

The testing date shall be in accordance with the performance test date identified in 40 CFR §60.13.

b. Conducting a source performance test as required in Special Condition No. F.1 of this Attachment.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

8. The permittee shall notify the Department of Health and U.S. EPA, Region 9, of the intent to conduct compliance tests as required by Special Condition No. F.3 of this Attachment at least **sixty (60) days** prior to the scheduled test date.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §63.6645)[1]

9. The permittee shall notify the Department of Health and U.S. EPA, Region 9, of the compliance status of the diesel engine generators relative to the requirements of Special Condition No. C.8.b of this Attachment within **sixty (60) days** of completion of the testing program required by Special Condition No. F.3 of this Attachment.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §63.6645)[1]

Section F. Testing Requirements

1. The permittee shall conduct or cause to be conducted performance tests on diesel engine generators D-6, D-7, D-8, and D-9. Performance tests shall be conducted for nitrogen oxides (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), volatile organic compounds (VOC) and particulate matter (PM). The ammonia slip from the SCR system on diesel engine generator D-9 shall also be tested. Performance tests shall be conducted on an annual basis or at such times as may be specified by the Department of Health.

   All performance tests shall be conducted between 100 and 110 percent of operating capacity of the units being tested. Tests may be required at other operating capacities as may be specified by the Department of Health.

   Upon written request and justification, the Department of Health may waive the requirement for a specific performance test. The waiver request is to be submitted prior to the required test and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior tests indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous source test.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

2. Performance tests for the emissions of NO_x, SO_2, CO, VOC and PM shall be conducted and results reported in accordance with the test methods set forth in 40 CFR Part 60,

Appendix A, and 40 CFR §60.8. The following test methods or U.S. EPA-approved equivalent methods with prior written approval from the Department of Health shall be used:

a. Performance tests for the emissions of SO_2 shall be conducted using 40 CFR Part 60 Methods 1-4 and 6.
b. Performance tests for the emissions of NO_x shall be conducted using 40 CFR Part 60 Methods 1-4 and 7.
c. Performance tests for the emissions of CO shall be conducted using 40 CFR Part 60 Methods 1-4 and 10.
d. Performance tests for the emissions of VOC shall be conducted using 40 CFR Part 60 Methods 1-4 and 25A.
e. Performance tests for the emissions of particulate matter shall be conducted using 40 CFR Part 60 Methods 1-5.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

3. The permittee shall conduct performance tests on each diesel engine generator to demonstrate compliance with the requirements of Special Condition No. C.8.b of this Attachment no later than October 30, 2014. Performance tests shall be conducted for carbon monoxide (CO). The catalyst pressure drop and catalyst inlet temperature shall also be measured and recorded. Subsequent performance tests shall be conducted after every 8,760 hours of operation or three (3) years of operation, whichever comes first. Performance tests shall be conducted under such conditions as the EPA specifies to the permittee based on representative performance (i.e., performance based on normal operating conditions) of the diesel engine generator. Performance tests for emissions of CO shall be conducted and results recorded and reported in accordance with the test methods and procedures set forth in 40 CFR §63.6620.

   (Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §63.7, §63.6612, §63.6615, §63.6620)[1]

4. At least **thirty (30) days** prior to performing the performance tests required by Special Condition No. F.1, the permittee shall submit a written *performance test plan* to the Department of Health that describes the test duration, test locations, test methods, source operation and other parameters that may affect test results. Such a plan shall conform to U.S. EPA guidelines including quality assurance procedures. A test plan or quality assurance plan that does not have the approval of the Department of Health may be grounds to invalidate any test and require a retest.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21, §63.6645, §63.6665)[1]

5. At least **sixty (60) days** prior to performing the performance tests required by Special Condition No. F.3, the permittee shall submit a written *performance test plan* to the Department of Health and U.S. EPA, Region 9, (Attention: AIR-3) that describes the test duration, test locations, test methods, source operation and other parameters that may affect test results. Such a plan shall conform to U.S. EPA guidelines including quality

assurance procedures. A test plan or quality assurance plan that does not have the approval of the Department of Health may be grounds to invalidate any test and require a retest.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21, §63.7, §63.6645, §63.6665)[1]

6. The permittee, at its own expense, shall be responsible for installing and providing the necessary ports in stacks or ducts and such other safe and proper sampling and testing facilities as may be necessary for the determination of the air pollutants emissions.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21)[1]

7. The performance test shall consist of three (3) separate runs using the applicable test method. For the purpose of determining compliance with an applicable regulation, the arithmetic mean of the results from the three (3) runs shall apply.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

8. Any deviations from these conditions, test methods, or procedures may be cause for rejection of the test results unless such deviations receive written approval by the Department of Health before the tests.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

9. Within **sixty (60) days** after completion of the performance test required by Special Conditions Nos. F.1 and F.3 of this Attachment, the permittee shall submit to the Department of Health and U.S. EPA, Region 9, (Attention: AIR-3) the test report which shall include the operating conditions of diesel engine generators D-6, D-7, D-8, and D-9 at the time of the test, the analysis of the fuel oil, the summarized test results, comparative results with the permit emission limits, and other pertinent field and laboratory data.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-132; 40 CFR §52.21, §63.7, §63.6645, §63.6665)[1]

Section G. Agency Notification

Any document (including reports) required to be submitted by this permit shall be done in accordance with Attachment I, Standard Condition No. 28.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

[1]The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

[2]The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.